

WHAT IS CLAIMED IS:

1. A method comprising:

placing of an integrated circuit die on a substrate using a first head, the integrated circuit die comprising a first plurality of electrical contacts and the substrate comprising a
5 second plurality of electrical contacts; and

applying energy to the integrated circuit die using a second head to form an integral electrical connection between one of first plurality of electrical contacts and one of the second plurality of electrical contacts.

10 2. A method according to Claim 1, further comprising:

placing underfill material on the substrate, wherein placing the integrated circuit die on the substrate comprises placing the integrated circuit die on the underfill material.

15 3. A method according to Claim 2, wherein placing the integrated circuit die on the substrate further comprises:

compressing the underfill material with the integrated circuit die.

4. A method according to Claim 3, further comprising:

applying energy to the underfill material to cure the underfill material.

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5. A method according to Claim 1, wherein placing the integrated circuit die on the substrate comprises:

aligning the first plurality of electrical contacts with the second plurality of electrical contacts.

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6. A method according to Claim 1, wherein applying energy to the integrated circuit die comprises:

applying a force to the integrated circuit die to bias the integrated circuit die toward the substrate using the second head.

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7. A method according to Claim 6, wherein applying the energy further comprises:
applying thermal energy to the integrated circuit die using the second head.

8. A system comprising:

10 a placement head to place an integrated circuit die on a substrate, the integrated circuit die comprising a first plurality of electrical contacts and the substrate comprising a second plurality of electrical contacts; and

a bonding head to apply energy to the integrated circuit die to form an integral electrical connection between one of first plurality of electrical contacts and one of the
15 second plurality of electrical contacts.

9. A system according to Claim 8, further comprising:

a dispensing device to dispense underfill material on the substrate,

wherein the placement head is to place the integrated circuit die on the underfill
20 material.

10. A system according to Claim 9, wherein the placement head is to apply a force to the integrated circuit die to compress the underfill material with the integrated circuit die.

25 11. A system according to Claim 10, further comprising:

an oven to apply energy to the underfill material to cure the underfill material.

12. A system according to Claim 8, the placement head to align the first plurality of electrical contacts with the second plurality of electrical contacts.

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13. A system according to Claim 8, the bonding head to simultaneously apply thermal energy and a force to the integrated circuit die, the force to bias the integrated circuit die toward the substrate.

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14. A system according to Claim 8, further comprising:

a transporter to transport the integrated circuit die from the placement head to the bonding head.

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15. A system according to Claim 8, further comprising:

a second placement head; and

a plurality of other bonding heads.

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16. A system comprising:

an integrated circuit die comprising a first plurality of electrical contacts; and

a substrate comprising a second plurality of electrical contacts,

the integrated circuit die placed on the substrate by a placement head, and an integral electrical connection formed between one of first plurality of electrical contacts and one of the second plurality of electrical contacts by energy applied to the integrated circuit die by a bonding head.

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17. A system according to Claim 16, the first plurality of electrical contacts aligned with the second plurality of electrical contacts by the placement head.

18. A system according to Claim 16, the integrated circuit die to have
5 simultaneously received thermal energy and a force from the bonding head, the force to bias the integrated circuit die toward the substrate.

19. A system comprising:
a microprocessor comprising:
10 an integrated circuit die comprising a first plurality of electrical contacts; and
a substrate comprising a second plurality of electrical contacts,
the integrated circuit die placed on the substrate by a placement head, and an
integral electrical connection formed between one of first plurality of electrical
contacts and one of the second plurality of electrical contacts by energy applied to
15 the integrated circuit die by a bonding head; and
a double data rate memory coupled to the microprocessor.

20. A system according to Claim 19, the first plurality of electrical contacts aligned with the second plurality of electrical contacts by the placement head.
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21. A system according to Claim 19, the integrated circuit die to have
simultaneously received thermal energy and a force from the bonding head, the force to bias
the integrated circuit die toward the substrate.